

ABSTRACT

An etalon is disclosed comprising a first rutile or strontium titanate material having a first coefficient of thermal optical path length change β_1 that has a negative value, coupled with a second material having a coefficient of 5 thermal optical path length change β_2 that is positive, and an optical path extending through the first material and the second material, such that the effective temperature coefficient of the optical path length is close to zero. Further, the total optical path length in the cavity gives a desired free spectral range of the etalon. Etalons composed of a single crystalline material are also 10 disclosed. Such materials may include crystalline quartz.